

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

11 FEB 2005


Applicant's or agent's file reference P61268PC00		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NL 03/00577	International filing date (day/month/year) 12.08.2003	Priority date (day/month/year) 13.08.2002	
International Patent Classification (IPC) or both national classification and IPC H01L21/56			
Applicant OTB GROUP B.V. et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 10 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☒ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 24.03.2004	Date of completion of this report 11.11.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Schuitemaker, P Telephone No. +49 89 2399-2188



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL 03/00577**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-6 filed with telefax on 21.09.2004

Claims, Numbers

1-20 filed with telefax on 21.09.2004

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

- ☒ restricted the claims.
☐ paid additional fees.
☐ paid additional fees under protest.
☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☒ not complied with for the following reasons:

see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
☒ the parts relating to claims Nos. 1-9,11-14,16-20 .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-9, 11-14,16-19
	No: Claims	1
Inventive step (IS)	Yes: Claims	8,20
	No: Claims	1-7,9,11-14,16-19
Industrial applicability (IA)	Yes: Claims	1-9,11-14,16-20
	No: Claims	

2. Citations and explanations

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see separate sheet

Ad section I:

- I) The text **'the distance between the two mould halves is continuously regulated and adjusted during the two mold halves being moved towards each other and during the two mold halves being held in a position when moved towards each other during the curing of the compound'** used in claims 1 and 11 is unclear, since the holding in a position of the mould halves would appear to suggest that the mould halves are stationary in a particular position which appears to be contradictory to the text 'when moving'. Thus, claims 1 and 11 do not meet the requirements of Article 6 PCT. For the establishment of the opinion on novelty and inventive step the claims have been interpreted to define that the distance between the two mould halves is continuously regulated and adjusted during the two mould halves being moved to each other and the mould halves are being held in a (closed) position during the curing of the compound.

Ad section IV:

- I) Reference is made to the following documents:

D1: EP-A-0 971 401 (APIC YAMADA CORP) 12 January 2000 (2000-01-12)
cited in the application

D2: WO 01/087569 A (KOK RONALDUS JOANNES CORNELIS ;O T B
ENGINEERING B V (NL); EVERS M) 22 November 2001 (2001-11-22)

- ii) The subject-matter of claim 1 is fully anticipated by the both the disclosures D1 D2 such that the requirements of Article 33(2) PCT are not met (see section V below).

Dependent claims 2-7, 9, 11-14 and 16-19 do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3)), as these additional features are known from the cited documents and/or these additional features are considered to be normal and obvious design options for the skilled person.

Therefore, the subject-matter of claims 1-7, 9, 11-14 and 16-19 is already known/not inventive. The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists inasmuch as a technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT does not exist between the subject-matter of the following groups of dependent claims:

1. The subject-matter of claims 8 and 20; and
 2. The subject-matter of claims 10 and 15.
- v) The applicant has selected to proceed in this application with the above cited first invention (see reply of 25/05/2004).

Ad section V:

- i) Document D1 discloses (see e.g. paragraphs [0073] - [0085]) a method for completely or partly covering at least one electronic component with a compound, wherein in a suitable order, the following steps are traversed:
- a) the at least one electronic component 10/12/16 is placed on a mould half 20;
 - b) the electronic component is completely or partly covered with the compound 50;
 - c) a second mould half 21 which is moveable relative to the first mould half is moved in the direction of the first mould half (see e.g. column 13, lines 3-5);
 - e) the distance between the two mould halves is continuously regulated.
- Moreover, it is evident to the skilled person that during the closing of the mould, i.e. during the mould halves being moved to each other, the distance between the mould halves is adjusted and the mould halves are being kept closed during the curing of the compound. Thus, D1 also disclosed that the distance between the two mould halves is adjusted during the two mould halves being moved to each other and the mould halves are being held in a (closed) position during the curing of the compound.
- Consequently, the subject-matter of claim 1 is not novel (Article 33(2) PCT).

Additionally, the subject-matter of claim 1 is also fully anticipated by the disclosure D2 such that the requirements of Article 33(2) PCT are not met (lack of novelty).

- ii) Dependent claims 2-7, 9, 11-14 and 16-19 do not contain any additional features which, in combination with the features of any claim to which they refer, meet the

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requirements of the PCT in respect of inventive step (Article 33(3)), as these additional features are known from the cited documents and/or these additional features are considered to be normal and obvious design options for the skilled person.

- iii) The additional features of dependent claims 8 and 20 are not disclosed and/or suggested in the cited prior art. Therefore, it would appear that the subject-matter of claims 8 and 20 meet the requirements of Articles 33(2) and (3) PCT.

INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L21/56

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 971 401 A (APIC YAMADA CORP) 12 January 2000 (2000-01-12) cited in the application page 9, column 16, line 32 - page 10, column 18, line 47; figures 6,18,19A	1-7, 9, 11-14, 16-20
X	WO 01/087569 A (KOK RONALDUS JOANNES CORNELIS ; O T B ENGINEERING B V (NL); EVERS M) 22 November 2001 (2001-11-22) page 2, line 23 - page 4, line 3 page 5, line 27 - page 6, line 26	1-4, 11-13, 16, 17
A	US 2002/015748 A1 (AOKI KUNIHIRO ET AL) 7 February 2002 (2002-02-07) the whole document	1, 5, 6, 11, 13, 14, 18

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

4 December 2003

Date of mailing of the international search report

16/12/2003

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0971401	A	12-01-2000	EP 0971401 A2	12-01-2000
			JP 3207837 B2	10-09-2001
			JP 2000299335 A	24-10-2000
			JP 2002043345 A	08-02-2002
			SG 85653 A1	15-01-2002
			TW 421833 B	11-02-2001
			US 6344162 B1	05-02-2002
WO 0187569	A	22-11-2001	NL 1015140 C2	13-11-2001
			AU 5685901 A	26-11-2001
			CN 1427760 T	02-07-2003
			EP 1280645 A1	05-02-2003
			JP 2003533369 T	11-11-2003
			WO 0187569 A1	22-11-2001
			US 2003127757 A1	10-07-2003
US 2002015748	A1	07-02-2002	JP 2000277551 A	06-10-2000